Dr. Eduardo Corona y Perez
N. Casas Grandes, Chihuahua

UNIVERSITY OF MICHIGAN
MAY 27 1953
MEDICAL LIBRARY

Sec. 34.66 P. L. & R.
U. S. POSTAGE
PAID
El Paso, Texas
Permit No. 989

# Southwestern MEDICINE

OFFICIAL JOURNAL OF THE SOUTHWESTERN MEDICAL ASSOCIATION AND EL PASO COUNTY MEDICAL SOCIETY

## *Prepare now to attend the Annual Conference of the Southwestern Medical Association in El Paso Oct. 18-20*

*March, 1951*

Hospital Standardization ..... Page 83
An Editorial
New Cerebral Palsy Center In El Paso..... Page 84
This Is Security?..... Page 85
By Robert B. Homan, Jr., M. D., El Paso
Hodgkin's Disease And Lymphoid Tumors..... Page 86
By Hugh F. Hare, M. D., and C. Franklin Sornberger, M. D., Boston
Recent Advances In Proctology..... Page 91
By Harold Eidinoff, M. D., El Paso
Anemia ..... Page 92
By M. A. Carreras, M. D., Tucson

**REMEMBER THIS TERM?**

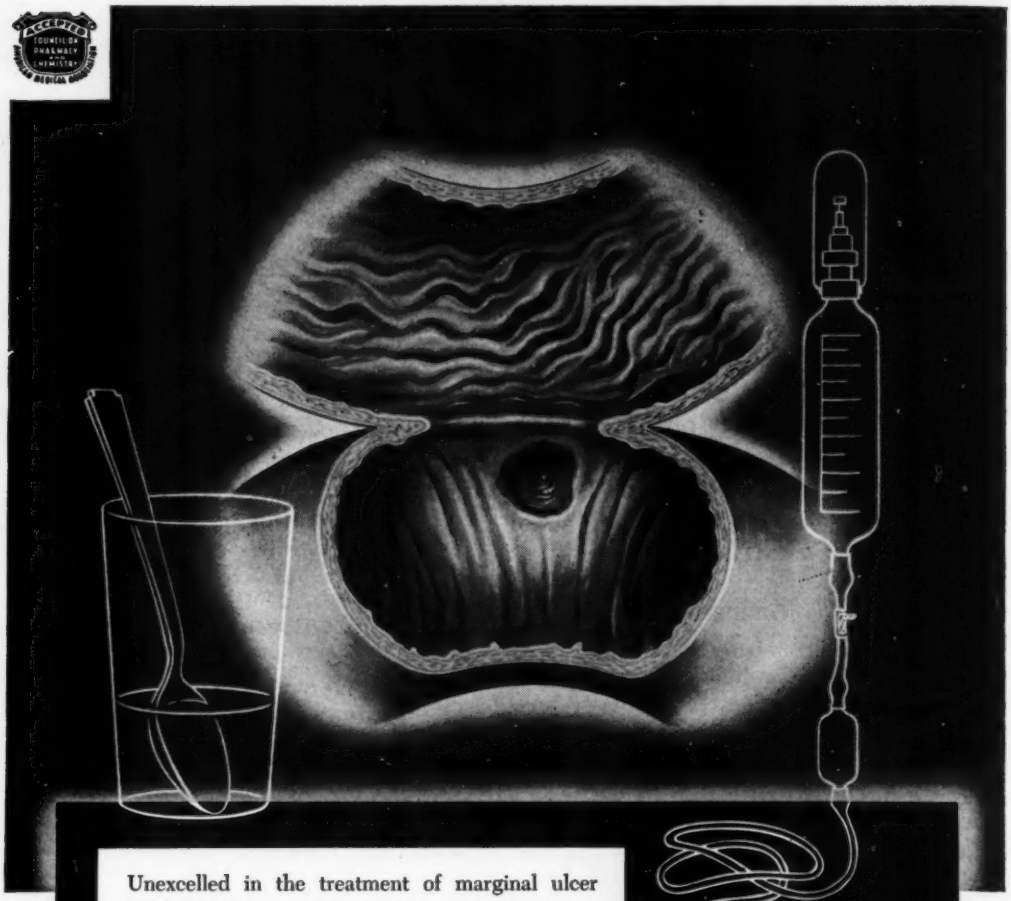
*Balmar*

Undoubtedly you would
if you had practiced medicine in 1876, when homespun garments
and tin tubs were giving way to "store clothes,"
early modern plumbing, and health spas—
*and Eli Lilly and Company had just been founded.*

Since then, the prescription for
*Balneum maris,* meaning *sea-water bath,* has nearly vanished.
Today, you don't whip out a quill pen, write *Bal. mar.,*
and send your patient packing to a distant spa or shore—
for healing waters. Instead, you simply say,
"Take a vacation"; or if medication is indicated,
you may specify a Lilly product and thereby bring
the latest benefits of pharmaceutical progress to his very door.

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U.S.A.

THIS PRINTING: 2,300 COPIES



Unexcelled in the treatment of marginal ulcer PHOSPHALJEL safely buffers gastric acidity—with no danger of alkalosis or "acid rebound." It lays a protective coating over the inflamed mucosa . . . provides quick relief from pain, facilitates rapid gains in strength and weight.

Excellent for prophylaxis against seasonal recurrences, protection against marginal ulcer following surgery, and in cases complicated by diarrhea and pancreatic deficiency.

PHOSPHALJEL is also admirably suited to intragastric drip therapy of refractory or bleeding cases.

Bottles of 12 fl. oz.

for stubborn cases of peptic ulcer

PHOSPHALJEL

ALUMINUM PHOSPHATE GEL

Wyeth

Wyeth Incorporated, Philadelphia 2, Pennsylvania

WHEN WRITING ADVERTISERS PLEASE MENTION SOUTHWESTERN MEDICINE

# HOSPITAL STANDARDIZATION

It has been customary since 1915 for hospitals to meet certain standards in order that the patient be rendered honest, adequate, and efficient medical care. The responsibility for this standardization has been assumed by the American College of Surgeons. It has cost this organization over two million dollars to carry out this project. When one realizes that in 1918 only 12 per cent of 692 institutions surveyed met the initial simple standards, and today 96 per cent of all hospitals of more than 100 bed capacity meet extremely rigid requirements, one realizes the extent of this humanitarium venture.

The financial burden has been great, and is increasing; and by necessity this comparatively small group of physicians will not be able to carry this load. Hence, it must be assumed by other groups, for example, the American College of Physicians. These groups, working together, can continue the splendid work which has been accomplished. The American Hospital Association has offered to assume the responsibility and the finances, but they wish literally to pack the proposed 25-man commission with non-professionals, made up of hospital trustees and administrators. Indeed, out of the 25 members, only six would be professional men. This offer, of course, was rejected.

### PATIENT SUFFERS

In the final analysis it is the patient who suffers if the medical practice in an institution is sub-standard. By necessity certain rules and regulations must be enforced. Someone has to judge what constitutes adequate care of a professional type. It is not reasonable to believe that non-professional people, even hospital administrators, are capable of occupying the seat of judgment. This has been, and must continue to be, the duty of the medical profession.

Very recently in Southern New Mexico the local Press has been "carrying the torch" for the osteopaths and chiropractors. The Press feels that these practitioners should have the same privileges as physicians regarding their right to practice in a hospital.

The editor has a perfect right to express his views, and absolute right to believe as he does; and, by the same token, the Medical Profession reserves its right to disagree. While every American realizes that freedom of the press is essential, this freedom obligates those that use it not to misinform their readers.

It would be well for the Press to check very carefully the veracity of the data before publishing statements which will mislead the public; because, whether or not the misleading statements are due to inaccurate information or due simply to hearsay, they do cause the public to lose confidence in humanitarium institutions.

### EDITOR MISINFORMED

The Editor made the statements that medical doctors and doctors of chiropractory, and of osteopathy all practiced together in St. Mary's Hospital in Gallup, N. M. The Editor must be misinformed.

The following letter to Dr. L. G. Rice, Secretary of the New Mexico State Medical Society, is herewith quoted:

*"Dear Doctor Rice:*

*Pursuant to our conversation last Saturday, I am writing in my capacity as Chief of Staff of St. Mary's Hospital to say that at no time to my knowledge have either osteopathic or chiropractic physicians been permitted to use the facilities of St. Mary's either as attending physicians or in consultation.*

*Trusting that this is the information you desire, I remain*

*Very sincerely yours,*
*/s/ F. W. Parker, M. D."*

It would seem that the Chief of Staff of St. Mary's Hospital should have accurate knowledge as to who practices in the institution, and is probably in a better position to know conditions than the editor of a paper many miles away.

In the same paragraph, the same Editor states: "The Belen Hospital is approved by the American Medical Association." In a letter to Dr. Leland Evans, Dr. F. H. Arestad, Associate Secretary of the Council of Medical Education and Hospitals, writes as follows:

"With reference to your letter of Jan. 19, may I say that the Belen General Hospital is not registered by the Council, and accordingly the announcement stating that the hospital has been approved by the American Medical Association is quite erroneous."

### GLARING ERRORS

It is indeed difficult to understand how an editor of a newspaper could make such glaring errors in one paragraph of an editorial. This undoubtedly is due to the inexperience of the individual in matters pertaining to hospitals and to the medical profession in general. Should the medical profession foster plans which allow gross inexperience to guide the standardization of hospitals, they would indeed be derelict in their duty.

Standardization of hospitals is a recognized necessity; it has existed 35 years. It must and will be continued. It has been and will be the responsibility of the medical profession. The care of the sick patient is paramount. The quality of that care can only be judged by those who have spent their lives in study and in research in order that the individual who is ill will have adequate, honest, proper medical attention.

---

## SOUTHWESTERN MEDICAL CONFERENCE SET FOR EL PASO, OCT. 18 - 20

The annual conference of the Southwestern Medical Association will be held this year Oct. 18-20 in El Paso, Dr. Louis W. Breck, president of the association, has announced.

Work has already begun on lining up an outstanding program of scientific speakers, Dr. Breck said.

As usual the annual meeting will be a clinical conference designed for the benefit of the many general practitioners of the Southwest as well as the specialists.

A special three-day sectional Eye, Ear and Nose meeting will be a major feature of the Conference.

---

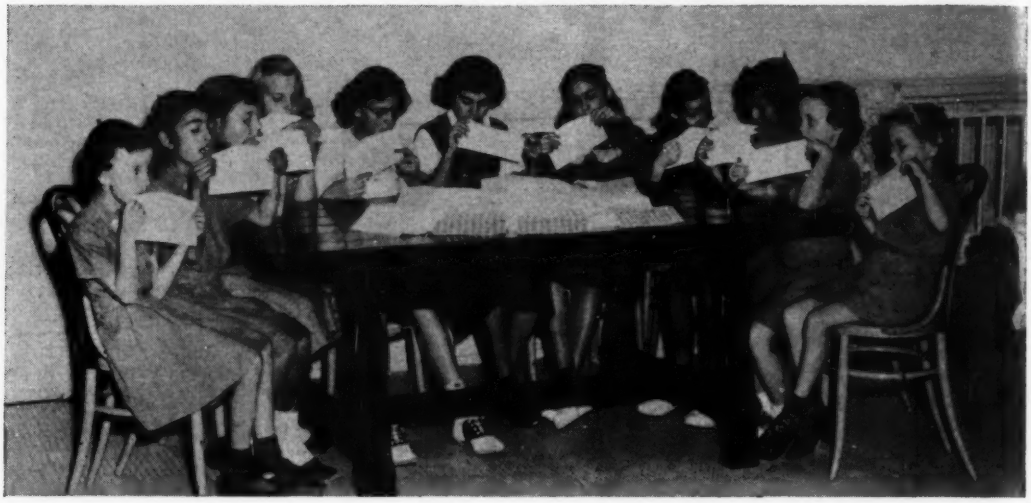
## 1951 OFFICERS NAMED FOR COCONINO, ARIZ., SOCIETY

Officers of the Coconino, Ariz., County Medical Society elected for 1951 are:

Dr. Leo Schnur, Grand Canyon, president.
Dr. John H. Calley, Williams, vice-president.
Dr. Herbert R. Rice, Flagstaff, secretary-treasurer.
Dr. Carroll C. Creighton and Dr. Martin G. Fronske, both of Flagstaff, delegates to the Arizona Medical Association.

D. W. KITTREDGE, JR., M. D.,
Flagstaff, Ariz.

# NEW CEREBRAL PALSY CENTER IN EL PASO



**EASTER SEAL WORKERS**—*Girl Scouts from various El Paso troops prepare some of the 30,000 envelopes which will be used to mail Easter Seals to El Paso families. Money raised from the sale of the seals is used for the support of the El Paso Cerebral Palsy Center in El Paso General Hospital. A new center is to be constructed in the near future.*

A new center for El Paso's cerebral palsy and spastic paralysis cases will be built in the near future on ground near Southwestern General Hospital on Erie Street.

The new building, which will be constructed at cost by contractor C. H. Leavell, will replace present facilities in El Paso General Hospital.

Money for the construction of the center will be provided by the El Paso Junior League and from the sale of Easter Seals, which also provide sole support for the care and treatment of these cerebral palsy cases.

### RESIDENTIAL CONSTRUCTION

The building, which will be of residential construction, will include two therapy rooms, speech room, play room, office, and waiting rooms. The exterior will be of common brick which will be continued, with some exceptions, in the interior. The speech room will be sound-proofed with special acoustical material.

The plans, which call for 1500 square feet of floor space, provide for future expansion.

Mrs. Fred W. Norton is chairman of the housing committee which is responsible for the construction of the building. Forrest M. Smith is president-treasurer of the El Paso Chapter of the Texas Society for Crippled Children.

### TRAINED TECHNICIAN

The Texas Society provided a trained technician, Miss Carme Philips, for the El Paso Center. Miss Philips will be in charge of the new building when it is completed.

The center, like its predecessor at El Paso General, will provide for the training not only of the patients but also of the parents, so that the problem is understood better and the patient has a better chance of overcoming the handicap.

However, the whole success of the program hinges on the public support of the Easter Seal sale. With the funds provided by the sale, the center can and will continue to give proper training of the many worthwhile spastic or cerebral palsy cases in and near El Paso.

---

## AMPOULES QUINIDINE GLUCONATE

AMPOULES QUINIDINE GLUCONATE, 0.08 Gm. per cc., 10 cc. (equivalent to 0.05 Gm. of quinidine alkaloid per cc.).

This product is a stable aqueous solution which can be given intramuscularly to those individuals who require the prompt effect of quinidine or to those who cannot take it orally.

The solution may be given intravenously in extreme emergencies. Intravenous injection is especially indicated for the control of cardiac irregularities, including arrhythmia, which may overtake the anesthetized patient. Such situations occur more frequently when cyclopropane gas is used and during thoracic or upper abdominal surgery. In these circumstances, the parenteral administration of quinidine is a life-saving measure.

The vital usefulness of this preparation suggests that it be made standard emergency equipment in every operating room, as well as in doctors' bags and offices.

# De Rebus Medicis Et Politicis

BY ROBERT B. HOMAN, JR., M. D., EL PASO, TEXAS
MEMBER OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

## THIS IS SECURITY?

Economic inflation is a matter of common interest, great discussion, and much discomfort in America today. The inflationary trend, which has been allowed to run unopposed since before World War II, received a further impetus with the onset of the Korean crisis. An administration which lacked the fortitude to prevent this last spurt of higher prices last August was finally forced to take the distasteful and drastic action of imposing "controls" in late January, six months too late. Having finally decided to act in behalf of the consumer, the administration lacked the nerve to roll back prices or wages even one day!

The result is that prices for essential commodities are higher than ever before in history. This has occurred at a time when the consumer is faced with higher taxation, both direct and hidden. The white collared worker is thus caught in an economic guillotine. The much praised standard of living of the American people is destined to suffer immeasureably unless a sane monetary policy is recovered. It may be too late!

### FINANCIAL DEBACLE

The present financial debacle is not due to the immediate war crisis and its attending hysteria. For 17 years this country has been existing under the burden of a managed currency system. This is the system that has devaluated your dollar through the printing press. Your government simply prints more money or more bonds when it wants to spend your uncollected taxes. For 15 of those 17 years the New Deal, the Fair Deal, and the Welfare State have failed to balance the budget. The benevolent party in power has simply kept the printing presses running off spurious currency and bonds to pay its way. In 1940 there were seven billion dollars in currency in circulation in the United States. Today there are twenty-eight billion phony bucks floating around the country!

What has this type of managed currency done to you? What has happened to your Government Savings Bonds or War Bonds? Suppose you bought a bond in February, 1941 for $75 and you cashed it in February, 1951 for $100, how did you come out? You gained $25 on paper, but your $100 bond redeemable today has a purchasing power of only $57. You put in a fairly good $75 in 1941 and got back a devaluated $57 in 1951! You decided to provide for your family with an additional $10,000 insurance policy in 1935. If you died tomorrow, the purchasing power provided your family by this policy would be only $5,700 at today's prices. The man who is now living on a pension or annuity provided by his own savings and thrift, now finds that his plans for security in his old age have failed. His income from his pension cannot support him in the market of the devaluated dollar.

### POOR POLICY

Every phase of American economy has been affected by this poor monetary policy. To bring it closer to the doctors, let us consider what has happened to hospitals. The cost of medical care has been singled out for attack by the Washington bureaucrats for reasons best known to them. The cost of hospitalization is a very big item in the over-all medical care cost. Hospitals buy the commodities essential to their operation on an open inflationary market — thus hospital costs to the sick are inflationary.

Here are a few price comparisons on common and essential hospital items:

| | 1941 | 1951 |
|---|---|---|
| Gauze sponges (4" x 4") per case | $15.95 | $37.45 |
| Cat gut — per gross | 30.48 | 57.12 |
| Sheets — per dozen | 22.95 | 40 00 |
| Pillow cases — per dozen | 4.50 | 9.00 |
| Thermometers — per gross | 54.00 | 96.00 |
| Nasal catheters — per dozen | 1.85 | 4.00 |
| V pads — per case | 11.00 | 17.44 |

Large and small items of equipment which must be bought or replaced have doubled and tripled in cost. Total operating expenses of hospitals have increased 150 per cent in the past ten years. In this same time salaries to personnel in hospitals have increased about 200 per cent. This salary increase is due to the high cost of living which every employed person faces through inflation.

Your patient or his insurance company, or both, find soaring hospital costs difficult to meet. This costly trend cannot continue indefinitely in the hospital field, or in any other field of essential service.

### STOP INFLATION

Inflation must be stopped! Prices of essential commodities and services must be rolled back. Controls are only a partial and incomplete and un-American answer. Do you recall the black market, the chiselers, and the five-percenters of our last excursion into price and wage-freezing? Inflation can be stopped by the people, by a people smart enough or mad enough to call a halt to the printing presses at the U. S. mint.

In 1934, this country abandoned the Gold standard. Up to that time U. S. currency was redeemable in gold — its value guaranteed. This condition no longer exists. Our currency has no guaranteed value — it may be devaluated at will. The American people should demand a return to the Gold standard.

That action would stop inflation and halt deficit spending. These are the greatest menaces to our nation today. Abraham Lincoln once said, "You cannot establish sound security on borrowed money." There are men in high government offices today who should recognize that simple fact.

# HODGKIN'S DISEASE AND LYMPHOID TUMORS

By Hugh F. Hare, M. D.,
and
C. Franklin Sornberger, M. D.,
Department of Radiology,
The Lahey Clinic, Boston, Mass.

Much has been written about the etiology of Hodgkin's disease, yet the problem remains unsolved. There are those who believe it is neoplastic in origin, others who think it is infectious; and some even suggest that it may be a bridge between the two.[2, 10] Whatever the cause, Hodgkin's disease behaves like a neoplastic process from the clinical standpoint. More important for the present is the fact that treatment of the disease must be undertaken from day to day in spite of our ignorance; and the patient deserves the best use of available methods.

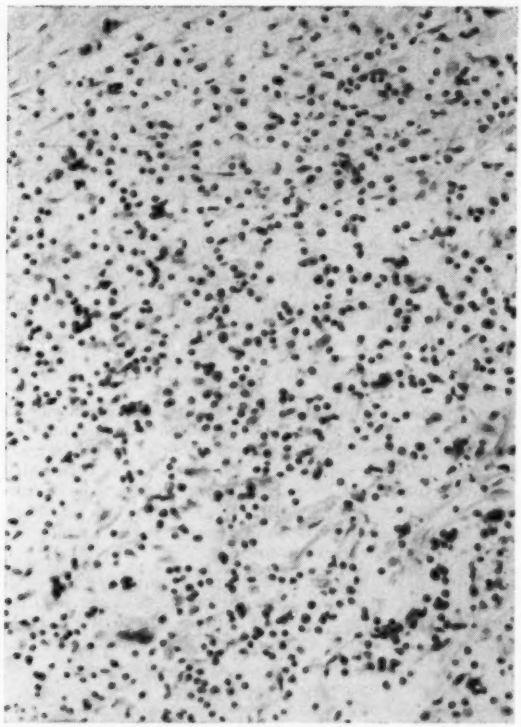


*Fig. 1. (Case 1) Section (x400) showing lymph node with disruption of the architecture and replacement by a diffuse, somewhat pleomorphic cellular pattern of lymphoid tissue. There is a moderate degree of fibrosis, without evidence of Reed-Sternberg cells; mitotic figures are almost entirely absent. In the absence of clinical or radiologic information in this case, the pathologist, Dr. Shields Warren, interpreted the sections as "tissue compatible with Hodgkin's disease," although it was not thought pathognomonic. In view of the almost unequivocal clinical and radiologic evidence of tumor of the lymphoma group, the roentgen examination of the chest is illustrated in Figure 2.*

It has been fashionable among those writing about lymphoma to assume a multicentric origin for the entire group of diseases. Certainly, the clinical course of the leukemias is consistent with this hypothesis, but evidence is accumulating that the assumption may be unwarranted as far as Hodgkin's disease and possibly lymphosarcoma are concerned.[3, 4]

## LIMITED PALLIATION

The belief that only limited palliation at best may be expected from the roentgen (or any other) treatment of Hodgkin's disease stems directly from the multicentric theory of its origin. To the uncritical observer this dim view of the outlook for the patient afflicted with Hodgkin's disease appears to be confirmed by the fact that the disease clinically resembles malignancy, with most treated patients living only a few years whereas an occasional untreated patient with a slow-growing tumor may survive for a decade or more. Thus, the general practitioner and some specialists have been conditioned to expect very limited benefits from roentgen therapy in Hodgkin's disease, and this despite the fact that the disease is known to be radiosensitive.[1]

In the light of present knowledge it is not known whether the lesions of Hodgkin's disease — and for that matter, other members of the lymphoma group — are multicentric or unicentric in origin. The current defeatist attitude toward the treatment and prognosis of early Hodgkin's disease is thus based on the arbitrarily adopted major premise that the disease is multicentric in origin, a premise which in the course of time may be demonstrated to be erroneous. This is a most regrettable situation, and one that has unfortunately been fostered by the opinions of some authorities.

## FIRST STEP

How, then, should early Hodgkin's disease be treated? The first and most important step is for the physician concerned to discard the popular but unproven concept that at onset Hodgkin's disease is of multicentric origin, until this question is proven one way or the other. This approach is essential if the patient is not to be deprived of all hope, and we believe a reasonably good hope, of at least long control of his disease, and possibly cure. The great importance of an improved prognosis in Hodgkin's disease is apparent when one considers that the maximum incidence is between 21 and 30 years of age.[5]

The next step is to bring to bear all available clinical and ancillary measures to determine whether the disease is still localized when the patient is first seen. If there is evidence that the disease is already widespread or generalized, the patient should be treated for palliation only, and in no case should the amount of radiation delivered be sufficient **per se** to

contribute to the patient's discomfiture. However, should evidence of extension be lacking, vigorous roentgen treatment of the area concerned should be undertaken at once with the intention of obtaining a minimum of 2400 r tumor dose.

## CONSIDERABLE EVIDENCE

There is considerable evidence to support the belief that longer and more effective control of the disease and possibly some cures may be brought about by this approach to the problem. We are in accord with Craver (1948) who stated: "It has long been my experience, for example in Hodgkin's disease, that outstanding among those cases with long survivals and long periods of freedom from disease are those in which the disease has been treated fairly aggressively while it is still early and localized" . . . . "At any rate, the principle seems sound that early localized Hodgkin's disease or lymphosarcoma offers the distinct possibility of better prognosis and perhaps even cure if treated adequately. I most decidedly do not agree with advocates of 'the smallest quantity of irradiation that will effect resolution of the gross disease'."

Catlin[3] (1948) found that in lymphosarcoma both multicentric and unicentric forms are constantly encountered. He concluded: "To us clinicians, it seems reasonable to consider the disease localized and unicentric in origin when initial positive findings are limited to the head and neck. It is this attitude which has prompted us to treat most of these cases intensively in an attempt to sterilize the disease while it may still be localized." The effect of vigorous treatment in cases of localized disease is shown by the 52 per cent five-year survival reported by Catlin, in contrast with the 26.3 per cent and 23.5 per cent five-year survivals obtained by Craver[4] (1947) and Stout[11] (1947) respectively who treated patients with both localized and extensive disease.

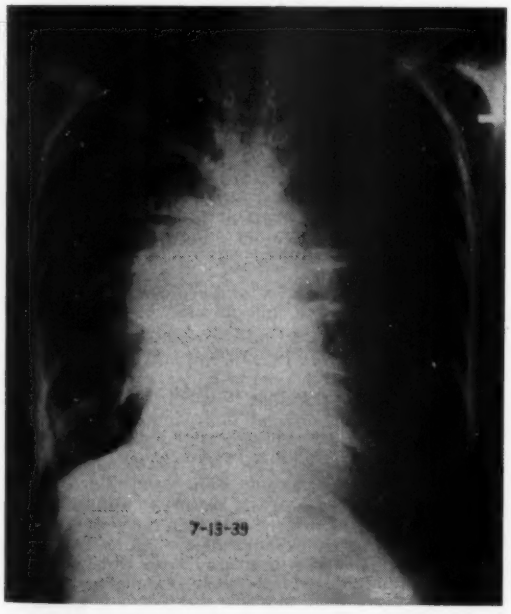



*Fig. 2. (Case 1) Roentgen examination dated July 13, 1939, prior to roentgen therapy. A large mediastinal tumor is present, more marked on the right.*

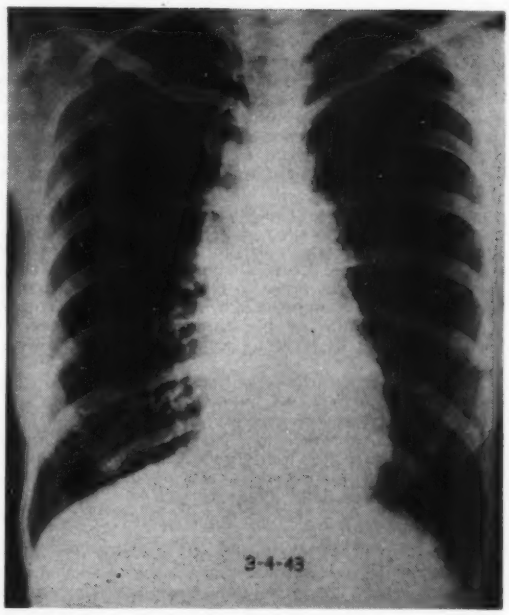



*Fig. 3. (Case 1) No recurrence of the mediastinal tumor (March 4, 1943) which resolved following one course of roentgen therapy in 1939. Calcified nodes are visible in the right hilar region.*

## IMPROVED METHODS

The effect of improved methods of irradiation on the proportion of long term results in Hodgkin's disease is well illustrated by a summary presented by Gilbert[6] showing 9.8 per cent of patients living and well in a series reported by Desjardins and Ford[5] of cases treated up to 1920, 17.7 per cent living and well[9] in a series up to 1927, and 46.0[7] per cent up to 1937. We believe that this favorable trend will be continued if patients with localized disease are treated with the intention of sterilizing the tumor.

The following case reports* are presented to illustrate, as has been observed by Craver, that patients with localized disease when treated vigorously, are outstanding among the long survivals in Hodgkin's disease. These cases also show that Hodgkin's disease does not need to be confined to the neck nor does the tumor need to be of the slow-growing type for long term control to be possible. Diagnosis was made by biopsy in all cases.

**CASE 1.**—A 19-year-old girl came to us July 13, 1939, complaining of a loss of weight for three years, cough of two months' duration, and hemoptysis on the day before admission. Physical examination revealed a hard, nodular, nontender mass 5 by 3 cm. in size, located posterior to the medial aspect of the

*These cases have been previously included in a summary of all lymphoid tumors treated at the Lahey Clinic from 1934 to 1942. (Hare, Mulry and Sornberger, 1948).

right clavicle. The mass had been noted by the patient one week previously. Laboratory studies showed a moderate secondary anemia; the leukocyte count was 15,500, with 85 per cent polymorphonuclears. A large paramediastinal tumor, largely on the right, and infiltration out to the mid-portion of the right lung were found on roentgenologic examination of the chest. Biopsy showed: "Tissue compatible with Hodgkin's disease," and the patient was given a poor prognosis (Figs. 1 and 2).

The patient was given a trial of 900 r (air) to the mediastinum in four days. Radiosensitivity was established by disappearance of the cough, and decrease in tumor size within the following two weeks. A total of 2800 r (air) was given to the right supraclavicular area and mediastinum which was followed by progressive resolution of the tumor, disappearance of symptoms, and increase in weight and general well-being.

Twenty-six months after the initial visit a palpable node appeared above the medial end of the **left** clavicle, but no treatment was given. Two months later the node had increased to 3 cm. in size, and a similar course of roentgen therapy was given to the left supraclavicular region which was outside the area of the original treatment (Figs. 3 and 4). The patient remained well and free of disease when last seen in 1949.

**Remarks:** This case represents ten-year control of the disease despite the fact that the entire tumor area was apparently not included in the original treatment and that there was extensive mediastinal involvement.

**CASE 2.**—A 55-year-old man came to the clinic on November 20, 1935, with a history of a lump in the right side of the throat of six weeks duration. The lump had been accompanied by voice changes, sore throat dysphagia, and an enlarged tonsil. Four weeks previously a physician had incised the enlarged tonsil and only blood was obtained. Physical examination showed a large, firm, irregular mass in the right tonsillar area, with displacement of the uvula to the left. The patient's voice was characterized by a nasal twang. Laboratory studies were negative. The microscopic diagnosis was malignant lymphoma (Fig. 5).

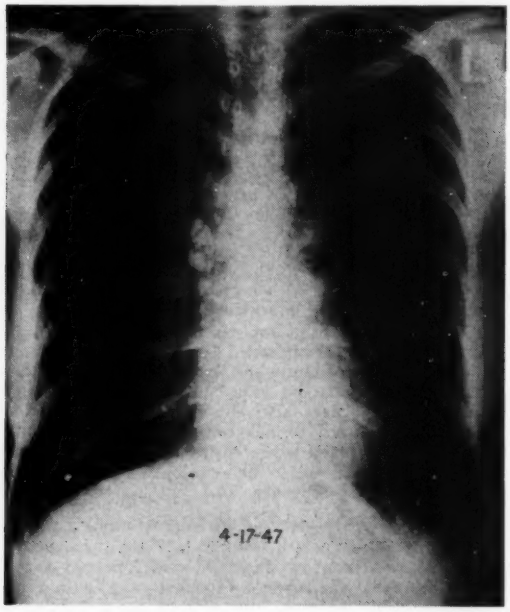



*Fig. 4 (Case 1) Follow-up examination April 17, 1947. The appearance of the chest is normal. The calcified nodes remain.*

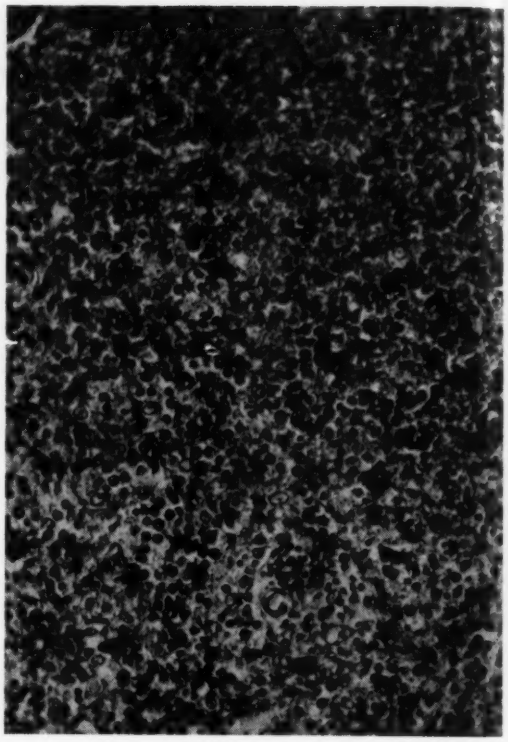


*Fig. 5. (Case 2, November 20, 1935) Section (x400) showing fairly rapidly growing lymphosarcoma of the lymphocytic type. There is a moderate number of mitotic figures and considerable lack of differentiation.*

Roentgen therapy was administered through right and left lateral ports, and through the open mouth to a total of 3500 r (air) directed to the tumor area. Two months after the initiation of therapy, no visible tumor remained.

The last follow-up was in 1944 when the patient was free of disease.

**Remarks:** This case represents nine-year control of what appears to have been localized Hodgkin's disease.

**CASE 3.**—A 53-year-old woman was admitted July 1, 1937, having noticed a mass in the left side of the neck which had been present for two months, and which was slowly increasing in size. There had been a 25 pound weight loss over the past year. On examination there was a firm, movable mass, 3cm. in diameter, in the left supraclavicular fossa. Roentgenograms of the chest showed a substernal mass extending down to the level of the seventh rib posteriorly, more marked on the left. The biopsy report was scirrhous lymphoblastoma, Hodgkin's disease (Fig. 6).

The patient was given 2834 r (air) to both anterior and posterior mediastinal ports, and 1968 r (air) to

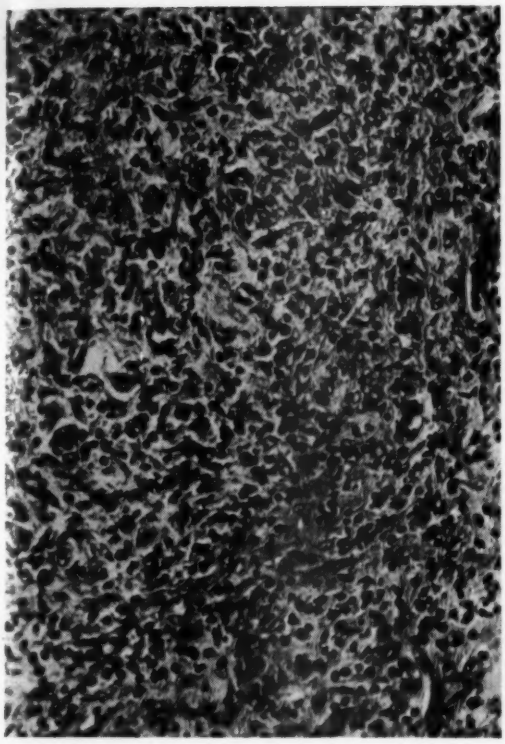


*Fig. 6. (Case 3, July 11, 1937) Section (x400) showing typical foci of actively growing Hodgkin's disease with a fair number of Reed-Sternberg giant cells and mitotic figures, with some scirrhous reaction.*

the left supraclavicular region, or a total of 7636 r divided between the two tumor areas. Follow-up was complete through 1948, and the patient remained free of disease.

**Remarks:** This represents an eleven-year control of the disease when there was involvement of the mediastinum and the left cervical region.

**CASE 4.**—A 28-year-old woman was seen on April 19, 1936, for swelling of the right side of the neck of two months' duration. The swelling appeared following a sore throat. Routine laboratory examinations were not unusual. The pathologic diagnosis was Hodgkin's lymphoblastoma (Fig. 7).

A total of 2618 r (air) was given to the right cervical region through a 10 cm. cone. Within two and a half months there was no visible or palpable tumor, and the patient was advised to marry. Follow-up through 1947 showed no evidence of recurrence.

**Remarks:** This case represents an eleven-year control of apparently localized Hodgkin's disease.

**CASE 5.**—A 38-year-old woman came to the clinic on February 15, 1934, with a history of having noticed a lump in front of the left ear eight days previously, and a similar lump below the left axilla four days ago. Examination showed the masses to be approximately 1 cm. in size. Routine laboratory examinations and a roentgenogram of the chest showed no abnormality. The miscroscopic diagnosis was malignant lymphoma, type unclassified (Fig. 8).

Approximately 2200 r (air) was given to each superficial node and a wide area around it, followed by disappearance of the masses. In 1937 the patient developed an adenocarcinoma of the rectosigmoid for which an abdominoperineal resection and colostomy were performed. Follow-up through April 1949 showed no evidence of recurrence of either Hodgkin's disease or the carcinoma.

**Remarks:** This case represents successful fifteen-year control of what appears to have been localized Hodgkin's disease, arising in either one or two foci.

## COMMENT

While it is true that claims of permanent cure in Hodgkin's disease must still be viewed with suspicion, and that results of treatment cannot be judged on the basis of isolated cases,[1] these 5 cases were selected from our previously reported lymphoma series because each represented a rapidly growing tumor from the clinical standpoint, yet long-term control was attained. In our experience, as well as in that of Craver, such control occurs most frequently when patients with localized disease are treated intensively. These cases are perhaps more significant when one considers that of the 181 cases in our recently re-

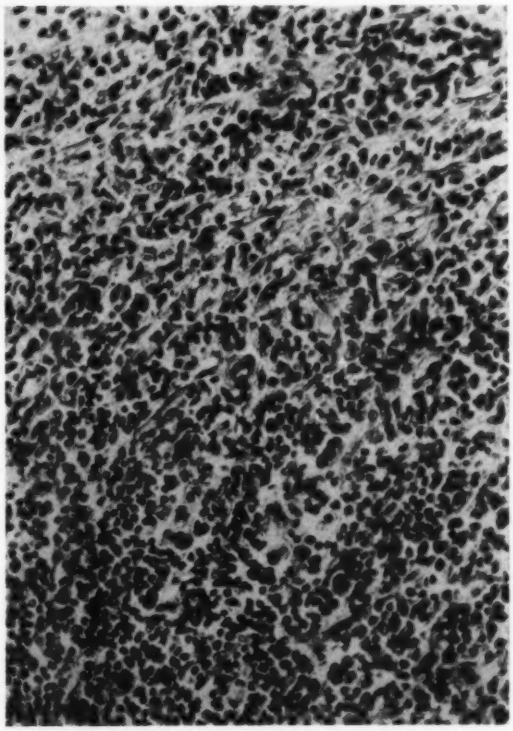


*Fig. 7. (Case 4, April 19, 1936) Section (x400) showing Hodgkin's disease, actively growing, cellular, with some foci of fibrosis and moderately abundant mitotic figures. The characteristic Reed-Sternberg cells are present.*

ported lymphoma series, only 3 of the more than 90 patients known to have **extensive disease** at the onset of treatment survived five years or longer. The fact that over 70 per cent of the patients in this same series living five years or more showed no evidence of recurrence during the period of observation is further evidence that intensive treatment in localized disease is rewarded by a substantial number of patients who obtain long-term control.[8]

Our plea, therefore, is for (1) adoption of the thesis — until proven otherwise — that Hodgkin's disease and lymphosarcoma may have a unicentric origin; (2) intensive treatment in cases of localized disease giving a minimum tumor dose of 2400 r with the expectation that over 50 per cent five-year survivals may be obtained, and that an as yet indeterminate number of patients may attain longer control, or even cure.

### BIBLIOGRAPHY


1. Ackerman, L. V., and del Regato, J. A.: Cancer: diagnosis, treatment and Prognosis. St. Louis, C. V. Mosby, 1947, 1115 pp.
2. Black, M. M., Bolker, H., and Howes, W. E.: Leukemia, lymphosarcoma, and Hodgkin's disease. New York State J. M., 49:943-946 (April 15) 1949.
3. Catlin, D.: Lymphosarcoma of the head and neck. Am. J. Roentgenol., 59:354-358 (Mar.) 1948.
4. Craver, L. F.: Lymphomas and leukemias; the value of early diagnosis and treatment. J.A.M.A., 136:244-249 (Jan. 24) 1948.
5. Desjardins and Ford: Quoted by Ackerman and del Regato (ref. 1).
6. Gilbert, R.: Quoted by Ackerman and del Regato (ref. 1).
7. Gilbert and Babaiantz: Quoted by Ackerman and del Regato (ref. 1).
8. Hare, H. F., Mulry, W. C., and Sornberger, C. F.: Lymphoid tumors. Radiol., 50:506-514 (April) 1948.
9. Holfelder and Hummel: Quoted by Ackerman and del Regato (ref. 1).
10. Jackson, H., Jr., and Parker, F., Jr.: Hodgkin's disease; general considerations. New Eng. J. M., 230:1-8 (Jan. 6) 1944.
11. Stout, A. P.: Results of treatment of lymphosarcoma. New York State J. M., 47:158-164 (Jan. 15) 1947.

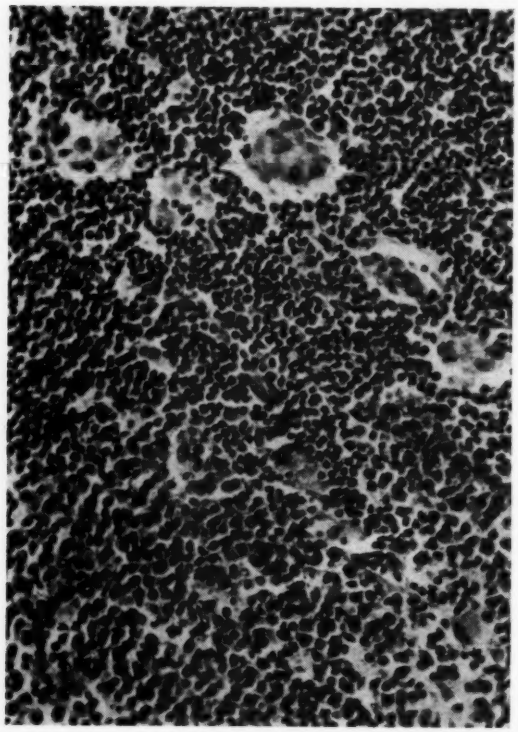



*Fig. 8. (Case 5, February 15, 1934) Section (x400) showing moderately rapidly growing malignant lymphoma, with an abundance of all types of lymphoid and reticulo-endothelial cells, with predominance of the lymphocytic type.*

## Vascular Disease Helped by Injection of Histamine

Forty-one of 72 patients with intermittent claudication manifested definite improvement and 13 had complete relief of pain from intragluteal injections of histamine in a retarding menstruum, Greenblatt, Feldman and Linder write in the *Journal of the American Medical Association* (September 24, 1949).

This conclusion was drawn from their study on a series of 93 cases with peripheral vascular disorders that included thromboangiitis obliterans, arteriosclerosis obliterans, diabetes mellitus and arteriosclerosis obliterans, varicose ulcer, arterial embolization, traumatic lacerations and fractures.

Histamine was administered as histamine diphosphate in a sesame oil-beeswax base, one to 2 cc. daily. The necessity of employing a dry syringe and needle was stressed, as moisture destroys the prolonged absorption of the drug.

Improvement was observed in eight of the 13 patients with thromboangiitis obliterans after an average course of treatment of 22 days; in 19 of the 30 patients with arteriosclerosis obliterans after an average of 26 days of treatment; and in 14 of 29 patients mild diabetes mellitus and arteriosclerosis obliterans after an average of 22 days of treatment.

The presence of uncontrolled, and difficult to control, diabetes made it hazardous to interpret the efficacy of histamine therapy in a group of 12 patients who also had arteriosclerosis obliterans.

Clinical improvement was observed in two of three cases of varicose ulcer. No improvement that could be attributed to histamine therapy was noted in four cases of arterial embolization and two cases of traumatic lacerations and fractures.

Results of treatment with histamine in a retarding menstruum were compared with those of paravertebral block on the skin temperature of the toes. It was found that histamine treatment produced a higher skin temperature of greater duration, indicating better restoration of circulation, than did the nerve block.

"In the period of two years," these authors state, "we saw 32 patients returning periodically for additional therapy. The effect of the course of histamine therapy (about eighteen days) persists about three months."

## SOUTHWEST NEW MEXICO CONFERENCE IN DEMING

Members of the Southwestern New Mexico Medical Conference and its Auxiliary met in Deming on Wednesday, January 31. The Conference consists of physicians from Sierra, Luna, Grant, Hidalgo, Otero and Dona Ana Counties.

Speakers and their subjects were Dr. Leigh E. Wilcox, El Paso, "Carcinoma of the Breast", and Dr. Clement C. Boehler, El Paso, "Management of Obstetrical Emergencies".

Officers of the conference are Dr. S. M. Ramer of Silver City, president; Dr. Bill Sedgwick of Las Cruces, vice-president; and Dr. Bill Hossley, Deming, secretary.

# RECENT ADVANCES IN PROCTOLOGY

By Harold Eidinoff, M. D., El Paso, Texas

**1. Anaesthesia: —** Caudal and spinal anaesthesia are gradually becoming the anaesthetics of choice in anorectal surgery. These anaesthetics offer the surgeon greater relaxation of the anal musculature, making it possible to do more careful anatomical dissection in the anal canal and lower rectum. With better visibility, bleeding can be more easily controlled. These anaesthetics also make possible the use of the prone position or the modified Sim's position. With the patient in the prone position, the operating table is jack-knifed and the buttocks are retracted with wide strips of adhesive. Both of these positions make for greater relaxation and better visibility of the operating field. If desired, the caudal and spinal anaesthesia can be supplemented by intravenous pentothal and the inhalation of oxygen carefully administered by a trained anaesthetist. The use of oil soluble anaesthesia as developed by Gorsch[1] and others is a valuable adjunct. The oil soluble anaesthetics produce a variable degree of postoperative analgesia. They should be injected deeply around the anal canal, and should be evenly distributed in the tissues to prevent pooling. The use of oil soluble anaesthesia in the caudal space is now under study and shows great promise as both a good surgical anaesthetic and a post-operative analgesic.[2] It has been shown by Gorsch that no more than 5 per cent Benzyl Alcohol should be used in the oil soluble anaesthetics.[1]

**2. Hemorrhoidectomy: —** An improved technique for the removal of internal hemorrhoids has been described by Moon and Christensen.[3] The use of this procedure requires the most complete relaxation of the anal musculature as previously described. It takes advantage of the anatomical distribution of the branches of the superior hemorrhoidal artery. These branches are found at the left lateral, right anterior, right posterior and mid-line posterior segments of the upper anus and lower rectum. The major hemorrhoidal masses are found at these points. If these major hemorrhoids can be ligated at their upper poles, the branches of the superior hemorrhoidal artery will be included in the ligature. Bleeding will thus be reduced to a minimum. No clamps are necessary and no sutures need be placed in the rectal mucosa or the anoderm, or modified anal skin. This makes for less post-operative pain and allows easier relaxation of the anal musculature during defecation in the post-operative period.

The method is as follows: A right angle retractor is inserted to bring into view the hemorrhoid to be dissected. With a scalpel or scissors, the dissection is started in the perianal skin about one half inch from the anal verge, to include the external skin tag. The incision is carried on each side of the hemorrhoidal mass along the lateral sulcus, across the intermuscular septum, and the anorectal line as far as the upper pole. A hemostat is placed on the tip of the skin tag and the entire mass is dissected away from the fascia, the subcutaneous external sphincter, and the internal sphincter. There will be a fair amount of bleeding during this procedure. As soon as the upper pole is reached, it is ligated with a suture on a needle, being tied on both sides. This stops most of the bleeding. The hemorrhoidal mass is cut off, leaving a small stump. If there is still any bleeding, the vessels can be picked up with a hemostat and tied. No ties or sutures should be placed in the anoderm which is very sensitive. When all of the major hemorrhoids are thus treated, there will be very little bleeding. Care must be taken not to include any muscle in the dissection. A wide column of mucosa and anoderm should be preserved between the areas where hemorrhoids are excised. Secondary hemorrhoids which lie between the major hemorrhoids can be removed in the same way, as long columns of anoderm and mucosa are preserved.

The advantages of this method are more complete removal of hemorrhoidal tissue, less destruction of the normal remaining tissue, no distortion of the normal anatomy of the anal canal, better drainage with less chance of postoperative infection, less post-operative pain, less likelihood of anal stenosis and more rapid healing.

**Perianal infections: —** These include ischiorectal abscess, supralevator abscess, retrorectal abscess, perianal abscess and the fistulae which result from these infections. The vast majority of perianal infections and fistulae have their origin in the perianal glands which empty into the recesses of the crypts of Morgagni. Once infection has developed and drainage is poor, the infection spreads along definite anatomical lines. These pathways are the fibrous continuations of the longitudinal muscles of the rectum.[4] From the termination of the longitudinal muscles at the anorectal junction, these fibers travel in many directions. They insert into the anoderm at the junction of the internal sphincter and the subcutaneous external sphincter. They continue under the anoderm and skin and form the corrugator cutis ani. They pass laterally between the three portions of the external sphincter muscle. The pathway taken by the infection along the course of these fibers determines the type of abscess and fistula which occurs.

The proper surgical treatment of perianal infection requires the excision and wide drainage of the entire pathway of infection up to its source of infection at the pectinate line and the removal of all infected crypts and hypertrophied papillae. Proper relaxation of the anal musculature is of utmost importance as previously described. If necessary, portions of the external sphincter muscle are incised to provide proper drainage. The subcutaneous and superficial portions of the external sphincter can be incised without causing incontinence. There is seldom any necessity for incising the deep muscle ring which includes the deep external sphincter and the puborectalis portion of the levator ani. If it is found that the internal opening of a fistula lies above the deep muscle ring, the operation should be done in two stages. The first stage is excision and drainage up to the deep muscle ring. A loose seton is placed in the remaining fistulous tract. After the superficial muscles have healed completely and united by strong scar tissue, then the deep muscle ring can be incised with less chance of incontinence.

There are some complicated fistulae which do not have their origin within the rectum or anus. These have been described by Gorsch[5] as originating in the urethra, seminal vesicles, adnexa, rectovaginal septum, fetal rests, dermoids, or osteomyelitis of the pelvic bones. These should be carefully studied by lipiodol injection and stereoscopic X-rays. When surgery is done in these cases, it should be extensive enough to provide complete drainage, regardless of what structures have to be removed.

## BIBLIOGRAPHY

1. R. V. Gorsch, Medical Record, Jan 3, 1934.
2. Barnett A. Greene, Brooklyn, N. Y.
3. Louis E. Moon and J. B. Christensen, Creighton University School of Medicine, Omaha, Neb. Film entitled "An improved technique for the operative treatment of common anorectal lesions.
4. Surgical Anatomy of the anal canal; E. T. C. Milligan and C. Naunton Morgan, St. Marks Hosp. London. Eng.
5. R. V. Gorsch and George L. Becker; Pathogenesis and treatment of extensive, atypical anorectal fistulas; American Journal of Surgery Vol. Lxxix No. 1, Jan. 1950.

# ANEMIA

By M. A. Carreras, M. D.*
Tucson, Arizona

In discussing anemias in general, one is bound to become confused by the varied terminology, particularly by the commonly used terms "primary" and "secondary."

By definition, anemia is a condition of the blood brought about by too few red cells or too little hemoglobin. These conditions are the result of:

(1) Interference with the formation of hemoglobin.
(2) Interference with the formation of red cells.
(3) Rate of the erythrocyte loss in excess to the rate of replacement.

Since all effects are the result of a cause, it follows that all anemias are secondary or the result of some cause as discussed previously, and the terms "primary" and "secondary" are obsolete and nondescriptive.

Anemias may be classified, if you wish, in very broad terms into three large groups based on the three general causes of anemia; mainly:

(1) Deficiency anemias.
(2) Bone marrow depression anemias.
(3) Anemia due to loss of blood.

However, inasmuch as the diagnosis of anemia is largely laboratory diagnosis, a more practical classification would be that based on the hematological values as found on the laboratory examinations. The laboratory will tell us the number of erythrocytes, the amount of hemoglobin and the rate of blood formation and destruction.

## ESSENTIAL PROCEDURES

The essential procedures to arrive at a correct diagnosis of anemia should include: complete blood count which tells us the number of cells; hematocrit reading which tells us the volume of the packed red cells and which normally reads 32 to 50 per cent and depends on the size of the individual red cells; the red cells fragility test; the bilirubin content of the serum; gastric analysis; stool examination for the determination of the presence or absence of occult blood and/or parasites; bone marrow studies and a reticulocyte count which reflects the activity of the bone marrow in replacing erythrocytes.

With this information in hand, we may then classify the anemias, according to the size and number of the red blood cells and the hemoglobin content, into the following:

(1) Normocytic, when the diameter of the cell is from 7 to 8 microns.
(2) Microcytic, when the diameter is less than 7 microns and
(3) Macrocytic when the diameter is more than 8 microns.

The determination of the cell diameter, however, is not a routine procedure and a more practical way is to use the mean corpuscular volume which is the ratio of the hematocrit reading to the red cell count in millions multiplied by ten, equaling 80 to 94 cubic microns in normal blood. Values above 94 cubic microns indicate a macrocytic type and values below 80 a microcytic type of anemia. Values between 80 and 94 cubic microns means that the cell volume is normal and the anemia is classified as normocytic. Further identification of the anemia is obtained by determination of the amount of hemoglobin in the cell or better still, by the hemoglobin concentration in the cell. This we do by determining the mean corpuscular hemoglobin which is the ratio of the hemoglobin in grams per thousand to the red cell count in millions, the result for the normal being 27 to 31 micromicrograms.

*Thomas-Davis Clinic

## TERM MISLEADING

This value, however, does not give a very accurate picture since in most anemias, increases or decreases in the average size of the red cell are associated with increases or decreases in the amount of hemoglobin. A truer picture is given by the ratio of the hemoglobin in grams per hundred to the volume of the packed red cells or hematocrit reading multiplied by 100 and expressed in percentages, the normal value being 30 to 38 per cent. Values below 30 per cent indicate a decreased amount of hemoglobin in the cell and therefore a hypochromic anemia. It should be mentioned here that according to Wintrobe values of mean corpuscular hemoglobin concentration above normal have not been observed. In pernicious anemia while the mean corpuscular hemoglobin or the color index are elevated, the mean corpuscular hemoglobin concentration is not, indicating that the increase in hemoglobin is proportional to the size of the erythrocyte and not due to an actual increase in the concentration of hemoglobin. Thus, the term hyperchromic is false and misleading.

You may have noticed at this point that the terms "color index," "volume index" and "saturation index" have not been used. Since these are relative values based on arbitrary normals, they are not as accurate as those described which represent absolute values.

## ANEMIAS GROUPED

With these values in mind, we shall proceed to group the anemias according to the size of the erythrocyte and its hemoglobin content.

The following possibilities exist:

(1) Microcytic hypochromic anemia.
MCV < 80 MCHC < 30

(2) Microcytic normochromic anemia.
MCV < 80 MCHC > 30

(3) Macrocytic normochromic anemia.
MCV > 94 MCHC > 30

(4) Normocytic normochromic anemia.
MCV 80-94 MCHC > 30

## MICROCYTIC HYPOCHROMIC ANEMIA

Mean corpuscular volume less than 80, mean corpuscular hemoglobin concentration less than 30.

The classical exponent of this type of anemia is that due to iron deficiency. Iron is an essential component of the hemoglobin molecule. Since this substance makes up most of the substance of the erythrocyte, a deficiency in iron will result in an inadequate amount of hemoglobin and the erythrocyte will be small and will contain less hemoglobin than normal.

An iron deficiency results when the intake of iron

is low or when the loss of hemoglobin exceeds the intake as is the case in chronic hemorrhage.

Actual dietary deficiency in iron is rare and is found in patients following milk diets or premature babies or food faddists.

The anemia of chronic hemorrhage is the most common of the microcytic hypochromic anemias. Among the common causes of chronic bleeding to keep in mind are carcinoma, peptic ulcer, hemorrhoids, hookworm, ulcerative colitis, and in the genito-urinary tract uterine hemorrhage, neoplasm, tuberculosis of the kidneys and schistosomiasis.

Next in the order of frequency is the so-called idiopathic hypochromic microcytic anemia of middle-aged females which is associated with glossitis, splenomegaly, brittle and splitting nails and achlorhydria. Plummer-Vinson syndrome is a variant of this, and the etiology is usually inadequate iron intake with deficient protein and poor digestive action with inability to release inorganic iron from the food.

#### Mediterranean anemia — thalassanemia

This is a type of hypochromic microcytic anemia of a hereditary and familial character found in individuals of Mediterranean extraction and is clinically found in two forms:

(1) Thalassanemia major, Cooley anemia.
(2) Thalassanemia minor, target cell anemia.

The major form of these conditions is seen in children between the ages of 6 months to 3 years and is associated with marked variation in the size of the red blood cells with immature forms present in the peripheral circulation, splenomegaly, hepatomegaly, and jaundice. The bones of the skull show a characteristic hair-on-end appearance. These anemias are usually fatal before the age of 10.

The minor variety is seen in the adult and is characterized by chronic refractory microcytic hypochromic anemia with slight splenomegaly, slight icterus and is also refractory to treatment.

Both the major and minor types are microcytic anemias but on the evidence of the blood smear alone, the major type has been labelled macrocytic because of the marked variations in the size of the erythrocytes with some as large as 15 microns. However, the mean corpuscular volume is definitely below 80 and therefore the anemia is microcytic.

The hemoglobin lack is at times fairly severe with the cells showing a small central amount of hemoglobin and a ring of hemoglobin around it, characteristic of the target cell appearance.

### MICROCYTIC NORMOCHROMIC ANEMIA

In this group fall the anemias commonly associated with chronic infection.

They are normochromic because the iron is not wanting.

These anemias are caused by a combination of blood destruction, bone marrow depression and interference with maturation of the normoblasts.

Usually they border on the normocytic type since the diminution in the size of the red blood cell is not as marked as in the iron deficiency type.

### MACROCYTIC NORMOCHROMIC ANEMIAS

Mean corpuscular volume greater than 94 cubic microns, mean corpuscular hemoglobin concentration larger than 30 per cent. In this group falls a large variety of anemias characterized by abundance of large erythrocytes with a high normal content of hemoglobin.

By and large, these types of anemias are caused primarily by a deficiency of one or more factors in the diet. The deficiency may be brought about by:

(1) Dietary insufficiencies as found in low protein diets and starvation.
(2) Deficiency in the intrinsic factor as found in true pernicious anemia, gastric resection, etc.
(3) Failure of absorption of the factor from the intestinal canal as found in terminal ileitis, chronic intestinal obstruction, etc.
(4) Failure of liver storage as found in diffused liver disease.

The anemias resulting from interference with the maturation of the red cells are characterized by:

(1) High normal hemoglobin content because there is no deficiency in iron.
(2) Macrocytic because hemoglobin is present in adequate amounts but not enough red cells are being liberated by the bone marrow.
(3) Normoblasts and occasional myeloblasts may be found in the peripheral circulation because of the stimulus that the anemia imposes on the bone marrow which does not have enough mature red cells to release.
(4) Leukopenia is usually present because these factors seem to be necessary for release of the white cells as well.

The bone marrow will show increased amount of megaloblasts since they are not matured rapidly and released.

The most important of these types of anemias is pernicious anemia, formerly called primary anemia. This is due to a deficiency of intrinsic factor of Castle. In the light of the recent investigations, vitamin $B_{12}$ seems to be this intrinsic or the extrinsic factor.

Pernicious anemia is characterized, besides the already mentioned morphological characteristics, by complete achlorhydria after the administration of histamine, glossitis, a moderate amount of hemolysis, a high reticulocyte count in the presence of liver extract or vitamin $B_{12}$, and the demyelanization of the posterior and lateral columns of the spinal cord, giving the picture of the combined subacute degeneration.

### FOUR TYPES

There are primarily 4 types of pernicious anemia:

(1) The morphological type where most of the signs and the symptoms are referable to the anemia.
(2) The neurological type where the neurologic signs predominate.
(3) The refractory type. In this type hydrochloric acid may be present in small amounts. It is very resistant to treatment and this anemia has also been called achrestic anemia by Israelis.
(4) The hemolytic type where jaundice and splenomegaly predominate.

That there is a hemolytic component in all pernicious anemia is evident from the fact that the serum bilirubin is generally raised to some extent. This has been attributed by some investigators to a sensitivity to lipoid products of the metabolism.

#### Pernicious anemia of Pregnancy

This is a very refractory type of anemia, usually severe. Jaundice is usually not present and macro-

cytosis is not very marked. Free hydrochloric acid is usually present in the stomach.

Fortunately, this type is not very frequent. It is supposed to be due to the increased foetal demands and nutritional deficiency and recovery usually follows delivery. This is not to be confused with a patient with pernicious anemia who becomes pregnant. Here the prognosis is very serious unless the patient is vigorously treated.

### Sprue

This is a disease of the tropics characterized by macrocytic anemia, free hydrochloric acid in the stomach, glossitis, large bulky, fatty stools, skin pigmentation, usually found in young adults. This had been previously attributed to many causes but more recently has been determined to be due to a deficiency in folic acid. This deficiency in folic acid may be due to a dietary insufficiency or by a defective absorption from the bowel as found in the non-tropical sprue or idiopathic steatorrhea.

Finally, there remains a large group of macrocytic anemias related to the deficiencies of one or more of these factors. Among the less common macrocytic anemias are:

(1) Anemia following chronic, small bowel obstruction.
(2) Diffuse liver disease.
(3) Goat's milk anemia.
(4) Pellagra.
(5) Occasionally in multiple myeloma.

## NORMOCYTIC NORMOCHROMIC ANEMIAS

Mean corpuscular volume 80 to 94 cubic microns, mean corpuscular hemoglobin more than 30 per cent. This group includes a variety of anemias caused by different mechanisms and include the anemias due to:

(1) Bone marrow depression or destruction.
(2) Internal blood destruction; that is, hemolytic syndromes or internal hemorrhages.
(3) Acute loss of blood after the body fluids have been replaced.
(4) Hypothyroidism.

### Bone marrow deficiency

In this group falls a large number of anemias, all due to bone marrow depression or destruction caused by different agents. This type of anemia is normocytic normochromic associated with thrombopenia and leukopenia. In other words there is pancytopenia.

Bone marrow depression may be brought about by:

(1) Chemical agents, benzoaniline oils, phenyl, sulfa drugs, etc.
(2) Idiopathic aplastic anemia, due to bone marrow depression of unknown etiology.
(3) Chronic Nephritis.
(4) X-ray.
(5) Fibrosis of the bone marrow, so-called myelophthisic anemia as is found in leukemia, metastatic carcinoma, polycythemia vera, marble bone disease.
(6) Hypersplenism.

As one would expect from the pathologic physiology, the size and hemoglobin content of the cell may be normal since iron and protein factors are present but not enough cells are manufactured by the bone marrow. There is a condition which was reported recently, more frequently called agnogenic myeloid metaplasia, in which there is myeloid metaplasia of the spleen sui generis and also found at times in the liver and in which the blood formation reverts back to these organs. This is frequently found in conjunction with chronic myelogenous leukemias or other conditions of fibrosis or encroachment of the bone marrow. Since in this condition the spleen is usually enlarged, it is very important to bear in mind that this is entirely different from the condition described as hypersplenism which is characterized also by anemia and splenomegaly but in which there is erythroblastic hyperplasia of the bone marrow and is supposedly brought about by a hormonal effect on the marrow from a hyperactive spleen. The syndrome of hypersplenism is dramatically improved by splenectomy. On the other hand, in agnogenic myeloid metaplasia where the spleen has now resumed the responsibility of manufacturing the blood, splenectomy will always be fatal.

### Hemolytic anemias, or anemias due to internal blood destruction

Internal blood destruction results in a normocytic normochromic anemia since there is no deficiency of either hemoglobin or maturation factor. The causes of this condition are very varied and only a few will be discussed. Among those which will only be mentioned are:

(1) Hemolytic poisons, heavy metals, snake venom, phenylhidrazine, etc.
(2) Parasites of the blood and intestine.
(3) Paroxysmal hemoglobinuria.
(4) Lederer's anemia.
(5) Incompatible blood transfusion, etc.

The two main types of anemia of hemolytic nature which are of more interest to us are the congenital and the acquired types of hemolytic anemias.

In the congenital group we find

(1) Sickle cell disease.
(2) Spherocytic anemia or congenital hemolytic icterus.

Sickle cell disease, as you know, is characterized by an inherent defect in the erythrocyte whereby the cell when subjected to a decreased oxygen tension loses its elasticity, becomes rigid and assumes the shape of a half moon or sickle. This condition is found only in individuals of the negro race. The trait itself is not symptomatic and is known as sicklemia. When symptomatic this condition is characterized by repeated hemolytic crisis associated with small vessel thrombosis and is apparently due to the inability of the sickled cells to go through the small capillary with resultant slowing of the circulation and eventual blocking of the capillaries in the small arterioles. The abnormal erythrocytes are then destroyed producing the picture of a hemolytic anemia. The diagnosis is made on finding the typical sickle-shaped cells which should be suspected in any colored individual with vague symptoms associated with anemia.

Spherocytic anemia or congenital hemolytic anemia is a condition characterized by the familial or hereditary type of anemia associated with jaundice and in which a characteristic spherical microcyte is found in the circulating blood. It is transmitted from parent to offspring as a dominant Mendelian trait. It is supposed that the spherocyte is a cell which due to its inherent defect assumes the appearance shown by normal red cells in the first stages of hemolysis. That is, spherical cell. Whenever enough of these cells are accummulated in the spleen, they are destroyed in large amounts, producing hemolytic crisis with fever, anemia and jaundice. The resistance of the erythrocyte to hypotonic salt solutions is markedly decreased.

Then there is the acquired type of hemolytic jaundice in which although the cells are originally normal, a hemolysin is developed in the serum which produces a similar picture; that is, the cells assume spherical form which is the first stage in hemolysis.

### TREATMENT
### MICROCYTIC HYPOCHROMIC ANEMIA

The treatment of this type, since the cause is an iron deficiency, is administration of adequate amounts of iron preferably in its ferrous form. Some patients do not tolerate the oral administration of iron and the parenteral administration becomes necessary. It should be emphasized that the best form of iron for intravenous injection is in the form of hemoglobin; namely, blood transfusions.

**Mediterranean anemias.**

No effective treatment is known as yet. Frequent blood transfusions offer the best results although only temporary.

**Macrocytic anemia.**

The treatment consists of replacement of the deficient factor, liver extract, folic acid, vitamin $B_{12}$, high protein diets, B complex.

**Bone marrow deficiency anemia.**

These are treated by removal of the cause if known, repeated blood transfusions to support the patient until the bone marrow has recovered. In cases of aplastic idiopathic anemia, no treatment has been discovered and the condition is invariably fatal if not supported with transfusions.

The treatment of hypersplenism has already been mentioned; namely, splenectomy.

Spherocytic anemia is also treated by splenectomy. This is also true of the acquired anemias but the results are not as good.

Sickle cell anemia does not respond to treatment. All that we can do is carry the patient through the crisis. Blood transfusions are of dubious value; oxygen inhalations have been tried with variable results. Anemia of infection: In recent literature shows very promising results of the treatment of these anemias with Cobalt chloride.

**Anemia of hypothyroidism.**

This anemia is resistant to treatment with iron or other preparations unless thyroid extract is also added when it improves rapidly.

### SUMMARY

(1) Anemias are best classified according to the size of the erythrocyte and its hemoglobin content.
(2) Etiologically they may be classified into deficiency anemias and hemolytic anemias.
(3) Treatment has been briefly discussed and consists in replacing the deficient substance or removing the factor causing blood destruction or bone marrow depression.

## AUREOMYCIN

The Excretion And Concentration Of Aureomycin In The Abnormal Human Biliary Tract

*Zaslow, J., et al., Gastroenterology 16:475, 1950*

Aureomycin administered orally, can be detected in gallbladder bile only when the cystic duct is patent and when liver function is normal. It is thus likely that aureomycin will prove of little value in treatment of acute obstructive cholecystitis.

Clinical Clippings, January, 1951.

## NEW MEXICO COUNTY SOCIETY OFFICERS MEET

Dr. Austin Smith, editor of the Journal of the American Medical Association, was principal speaker at a conference of New Mexico County Medical Society officers at the Hilton Hotel in Albuquerque, N. M., January 27.

Dr. Earl L. Malone of Roswell, N. M., chairman of the New Mexico Medical Society's committee on public relations, also spoke at the banquet at the evening session. Dr. I. J. Marshall, Roswell, New Mexico Medical Society president, presided over the conference, which began with a luncheon at 1 p. m.

Those who spoke at the afternoon session were Dr. Marshall, "The Challenge to County Society Officers"; Dr. A. S. Lathrop, Santa Fe, N. M., "Report of Legislative Committee"; Dr. V. E. Berchtold, Santa Fe, N. M., "Report of Basic Science Committee"; Dr. Stuart W. Adler, Albuquerque, N. M., "Report of Rural Health Committee"; Dr. C. Pardue Bunch, Artesia, N. M., "Report of Board of Supervisors"; Dr. Malone, "Report of Public Relations Committee"; Dr. Carl H. Gellenthien, Valmora, N. M., "Report of the National Education Campaign Conference in Cleveland, Dec. 7, 1950"; Dr. John F. Conway, Clovis, N. M., "Report of the A. M. A. House of Delegates in Cleveland, Dec. 5-7, 1950"; and Dr. Conway, "Report of New Mexico Physicians' Service".

## TABLETS 'TYLOSTERONE'

TABLETS 'TYLOSTERONE' (Diethylstilbestrol and Methyltestosterone, Lilly).

Heretofore, estrogens and androgens have been employed simultaneously on a basis that was largely tentative. It was theorized that when used together, they would avoid uterine bleeding and virilization while giving relief from menopausal symptoms. Now, there is conclusive clinical evidence, obtained in such a way as to preclude both prejudice and psychotherapeutic suggestion, that the combination contained in 'Tylosterone' does minimize the undesirable side-effects of estrogen alone, and furthermore, it affords an increased feeling of well-being while relieving the symptoms of menopause. In proper dosage, 'Tylosterone' provides objective and subjective relief, without side-effects.

Formula: Diethylstilbestrol 0.25 mg.
Methyltestosterone 5 mg.

## DYSMENORRHEA

The Anti-Pitressin Factor In The Treatment Of Dysmenorrhea

*Bickers, W., New England J. M. 243:645, 1950*

Dysmenorrhea continue to be a perplexing problem and one for which many solutions have been offered. In an attempt to bring about desensitization to vasopressin and thus make the myometrium refractory to physiologically induced vasoconstriction of menstruation, Bickers administered Pitressin In Oil to sixteen dysmenorrheic patients. Treatment was begun on the fifteenth day of the cycle, 10 units being given initially and a like amount every other day until onset of flow. A relatively high percentage of treated patients obtained complete relief.

*Bishop De Goesbriand Hosp.*

Clinical Clippings, January, 1951.

## ACTH

Effect Of ACTH On Induced Fever

*243:693, 1950*

*Kass, E. H. & Finland, M., New England J. M.*

Administration of ACTH prior to injection of typhoid vaccine materially reduced the duration and intensity of the expected febrile response. The mechanism by which ACTH acts as an antipyretic is not known but it is evident that such therapy fails to alter the underlying pathologic processes involved in illness.

*Boston City Hosp. & Harvard Med. School*

Clinical Clippings, January, 1951.

## ALLERGY

Pyromen In The Treatment of Perennial Allergic Symptoms

*Randolph, T. G. & Rollins, J. P. Ann. Allergy 8:626, 1950*

Pyromen* was administered to 150 allergic patients. Results were especially promising in those with food allergy. This pyrogenic substance apparently influences the pituitary-adrenal system although it is not as effective as ACTH and cortisone in treatment of chronic allergic conditions. Elevation of temperature is seldom observed following administration of Pyromen in individual doses of 0.5 to 10.0 micrograms.

**A highly purified bacterial product containing complex polysaccharides supplied by Baxter Laboratories, Inc.*

Clinical Clippings, January, 1951.

## ANTIBIOTICS

Management Of Bacterial Pneumonias

*Flippin, H. F. & Israel, H. L., M. Clin. North America 34:1653, 1950*

The authors emphasize a well-known, but sometimes overlooked, characteristic of antibacterial agents, *ie.*, that penicillin and streptomycin in adequate dosage are bactericidal whereas aureomycin, chloromycetin, terramycin and the sulfonamides are bacteriostatic. "As a consequence, administration of the latter agents should be continued for several days longer than is necessary with penicillin and streptomycin."

Clinical Clippings, January, 1951.

## CORTISONE — SYPHILIS

Cortisone In Experimental Syphilis: A Preliminary Note

*Turner, T. B. & Hollander, D. H., Bull. Johns Hopkins Hosp. 87:505, 1950*

Cortisone therapy alters the course of experimental syphilis, probably by disturbing the host-parasite relationship. When hormonal treatment is discontinued a "rebound" phenomenon occurs in which lesions attain unusual size. Until more is learned concerning the effect of cortisone in syphilis it is considered unwise to administer the hormone to luetic patients.

*Johns Hopkins School Hygiene And P. H.*

Clinical Clippings, January, 1951.

## IRON

The Diagnosis And Clinical Significance Of Iron Deficiency Anemia

*Mitchell D. C. & Mayer, O. B., J. South Carolina M. A. 46:343, 1950*

One of the most significant statements made by the authors concerns the body's strict economy of iron. In the absence of blood loss, less than 1 mg. iron is excreted daily. ". . . inherent danger can result from overloading iron stores. Besides the danger from reaction, this has been another strong recommendation against indiscriminate administration of intravenous iron, for such iron is 'trapped' in the body." There is no conclusive evidence that molybdenum, copper, or vitamin C increases absorption or utilization of iron.

Clinical Clippings, January, 1951.

## DEODORANTS

Report On New Deodorant For Hospital Use

*Brown, P. N., J. Michigan M. S. 49:1205, 1950*

Excellent deodorant properties are ascribed to a preparation* containing two quaternary ammonium compounds. The deodorant was satisfactorily used in ridding hospital rooms of obnoxious odors and, from preliminary observations, may prove useful in deodorizing wounds. The author states that the preparation is "non-toxic and non irritating in the percentage solution as advised and could readily be made use of in general hospitals as well as in mental institutions."

**Supplied by Associated Laboratories, Inc., Ann Arbor, Mich.*

Clinical Clippings, January, 1951.

## HEART DISEASE

The Effect Of Digitalis And A Mercurial Diuretic On The Electrolyte Balance In Patients With Congestive Heart Failure

*Chapman, D. W. & Shaffer, C. F., Am. Pract. 1:1172, 1950*

Maximum excretion of urinary sodium occurred within the first forty-eight hours following administration of Mercuhydrin. Mobilization of sodium was less pronounced following administration of digitalis than when the mercurial was given. Concerning management of cardiac patients, the authors state: "A reduced sodium content in drinking water, as well as the diet, is important in certain areas . . . . in which an excessively high sodium content is present in tap water."

*Baylor U.*

Clinical Clippings, January, 1951.

**For Your Convenience**

**Use Our Handy Charge-A-Plate Service!**

**The White House**

El Paso, Texas